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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,476	05/24/2001	Indra Laksono	VIXS 008	2994

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EXAMINER

BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/864,476

Applicant(s)

LAKSONO, INDRA

Examiner

Reuben M. Brown

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/18/06 have been fully considered but they are moot in light of the new grounds of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5, 7-13, 15-18, 20, 23, 25-31 & 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diefes, (U.S. Pat # 6,067,440), in view of Yu, (U.S. Pat # 5,561,456) & Rodriguez, (U.S. pat # 6,986,156).

Considering claim 1, the claimed method for managing resources in a multimedia system, comprising:

‘receiving a client request for a multimedia system service from one of a plurality of clients’ and determining whether the client request is valid’, is met by the teaching of Diefes, which discloses that upon receiving a subscriber’s request for a pay-per-view movie or channel, the headend controller 16 configures the appropriate subscriber privilege information, and transmits it to the addressable switch 18, based on this information, the instant requesting subscriber is accepted or denied access to the requested movie or channel, see col. 7, lines 25-40; col. 11, lines 1-15 & col. 11, lines 55-67 thru col. 12, lines 1-10.

As for the further claimed feature of ‘when the client request is valid, determining whether the multimedia system has sufficient resources to fulfill the client request’, Diefes merely discloses providing access to the requested content, depending upon whether the client was determined to be valid. However Yu, which is also directed to video on demand, teaches detecting whether the system has available stream capacity to meet one or more client(s) requests, see col. 5, lines 1-25. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Diefes with the technology of detecting a streams transmission capability, for the desirable improvement of more efficiently controlling the distribution system, according to the teachings of Yu.

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The additional claimed subject matter of; 'when the multimedia system has sufficient resources, then allocating at least some of the resources to the one or more clients', is met by the disclosure of Yu, which teaches that when stream capacity is available, then providing the request to the client, col. 5, lines 10-37.

Regarding the amended feature of multimedia service having plurality of service types, both references are directed to VOD. However, Rodriguez teaches a server that provides a plurality services, VOD, EPG, broadcast programming, etc, col. 6, lines 36-58; col. 7, lines 35-55. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Diefes, with the teachings of Rodriguez at least in order to provide the subscriber with a wider range of services, and to efficiently manage the bandwidth to a plurality of clients, see col. 2, lines 41-67. Rodriguez discloses bandwidth allocation, based on the plurality of services, col. 7, lines 35-55; col. 10, lines 41-67; col. 11, lines 5-62.

Considering claims 2, 13, 20 & 31, the claimed 'determining whether the program is restricted from one of the clients, and if so denying the client request', is met by the discussion in Diefes that the headend controller 16 provides subscriber privilege information to the addressable switch 28, regarding the authorization level of subscriber(s), with respect to programming, see col. 7, lines 29-45; col. 11, lines 5-15 & col. 11, lines 55-67 thru col. 12, lines 1-10. Also see Rodriguez, col. 7, lines 17-25.

Considering claims 5, 15, 23 & 33, the claimed feature of ‘determining whether a tuning module has the capacity to accommodate a client request’, is met by the discussion in Yu, that the scheduler determines if there is any stream capacity available on the server, col. 5, lines 60-67.

Considering claims 7, 16, 25 & 34, Yu teaches that the viewers in the H-queue, have priority over viewers in the C-queue, and the viewer(s) that have waited the longest have priority over those with a shorter wait, see col. 6, lines 41-67, thru col. 7, lines 1-12.

Considering claims 8-11, 18, 26-29 & 36, Yu teaches that the system checks to see if video streams allocated to the C-queue are available, (col. 7, lines 1-21) and if so, they may be used to meet the requirements of the H-queue, which reads on the claimed, optimal resource allocation’.

Considering claim 12, the claimed method of managing resources in a multimedia system, comprises steps that substantially correspond with subject matter mentioned above in the rejection of claim 1, and is likewise treated. The additionally claimed, “allocating best match resources of the available resources”, is broad enough to read on the disclosure of Yu, (col. 6, lines 10-50). In particular, Yu teaches that each client request is assigned a certain wait tolerance, which is prioritized based on H-queue or C-queue. The server attempts to serve each as near as possible to its wait tolerance, while also balancing the constraint of attempting to serve all of the requests from the same movie from the same stream, col. 6, lines 40-60.

In this instance, “best match” reads on whichever stream selected that facilitates the requested video to the subscriber, given the constraints of the scheduling algorithm.

Considering claims 17 & 35, regarding the claimed best match comprising; ‘maintaining a listing of resource capabilities’, Yu teaches that CPU executes various programs to operate the server 30, but does not explicitly state that a list of items was produced. Official Notice is taken that at the time the invention was made, it was well known in the art to have a list of components. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Defies and Yu, with the known feature of a catalog of components, at least for the desirable advantage of more easily managing the instant components.

‘determining a type of resource needed to support the client request’, and ‘performing best match analysis to identify the best match of the plurality of resources, based on the capabilities’, reads on the disclosure in Yu that memory buffers 105 may be used for play/pause interaction with a client, rather than the disks 102, which are used for streaming a movie to a plurality of clients, see col. 4, lines 28-50 & col. 7, lines 21-40.

Considering claim 30, the claimed apparatus for managing resources in a multimedia system, comprising elements that correspond with subject matter mentioned above in the rejection of claims 1 & 12, are likewise treated. Claim 30 additionally recite a ‘processing

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module' and a 'memory' operably coupled to the processing module, such that the memory includes operational instructions that cause the processing module to perform the steps previously recited in the above claims 1 & 12.

The claimed 'processing module' reads on the program code, disclosed in Yu, whereas the 'memory' is met by the disks in Yu, which are disclosed for storing program code for executing processes that operate the video server 30, see col. 4, lines 15-50.

4. Claims 3, 19 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diefes, Yu & Rodriguez, further in view of Goode, (U.S. Pat # 6,163,272).

Considering claims 3, 19 & 21, Diefes teaches determining the validity of the customer's request to view the selected channel. However, the reference does not explicitly discuss 'determining whether the video program exceeds a parental setting'. Nevertheless Goode, which is in the same field of endeavor teaches a system where a parent sets various authorization levels for various PIN assignments within a household, including a default level, col. 5, lines 5-40. Goode discloses that once a session is established the user is granted access to programming based on the corresponding authorization level, col. 6, lines 1-40. . It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Diefes with the feature of restricting access programming base don a parental control setting, fro the user. friendly benefit of allowing a parent to control programming viewed by the children, see col. 1, lines 5-50 & col. 3, lines 1-50.

5. Claims 4, 14, 22 & 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diefes, Yu & Rodriguez, and further in view Russell, (U.S. Pat # 4,890,322).

Considering claims 4, 14, 22 & 32, Diefes does not discuss determining when a subscriber places a request for a program. However, Russell, which is in the same field of endeavor, teaches that when ordering a movie, a request must be made within a predetermined time period, col. 5, lines 15-35. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Diefes with the feature of allowing a subscriber to order a movie within a specified time period, for the desirable advantage of allowing the system more effectively use its resources, for instance adjusting the time period depending upon the order requests for a particular movie, at a particular time, as taught by Russell, see col. 7, lines 10-20.

6. Claims 6 & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diefes, Yu & Rodriguez, further in view of Giammaressi, (U.S. Pat # 7,086,077).

Considering claims 6 & 24, the claimed feature of when the system does not have sufficient resources to fulfill a client's request, 'determining whether alternate multimedia service is available by querying one of the plurality of clients to select alternative multimedia service', Yu teaches that the scheduler can inform the user of an estimated wait time for a

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particular movie. Viewers in Yu have the option of joining a H-queue, i.e., 'hot list' or C-queue, i.e., cold-list. Nevertheless, Giammaressi discloses a method that determines the available bandwidth in the system, and if there is insufficient bandwidth then the quality of the video images being transmitted may optionally be decreased, in a bandwidth starvation mode, col. 6, lines 30-67 thru col. 7, lines 1-10. It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify Diefes & Yu to optionally provide the user with a decreased quality video, down to a minimal level, to at least provide the user with their requested video, as disclosed by Giammaressi.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Goode Bandwidth allocation.
- B) Lemmons Bandwidth allocation, based on services.
- C) Adams Optimum Bandwidth allocation algorithms.

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Any response to this action should be mailed to:

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Alexandria, VA 22313-1450
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or faxed to:

(571) 273-8300, (for formal communications intended for entry)

Or:


(571) 273-7290 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F(8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown


REUBEN M. BROWN
PATENT EXAMINER